UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,371	01/09/2002	James E. Pitkow	D/99467	6328

23910	7590	08/17/2004

FLIESLER MEYER, LLP
FOUR EMBARCADERO CENTER
SUITE 400
SAN FRANCISCO, CA 94111

EXAMINER
CUNNINGHAM, GREGORY F

ART UNIT	PAPER NUMBER
2676	7

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10 June 2004_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _19-24 and 37-65_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _19-22,37-40,43-46,49-52,55-58 and 61-64_ is/are rejected.

7)☒ Claim(s) _23,24,41,42,47,48,53,54,59,60,65 and 66_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _21 January 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _3/5/2002_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications of application received 06/10/2004.

2.   The disposition of the claims is as follows: claims 19-24 and 37-65 are pending in the application. Claims 1-18 and 25-36 are non-elected and cancelled. Claims 27-65 are newly added. Claims 19, 37, 43, 49, 55 and 61 are independent claims.

3.   When making claim amendments, the applicant is encouraged to consider the references in their entireties, including those portions that have not been cited by the examiner and their equivalents as they may most broadly and appropriately apply to any particular anticipated claim amendments.

Drawings

4.   The drawings were received on 1/21/2003. These drawings are acceptable with the following caveat:

According to page 18, line 23 of Specification, "The illustrations used as examples herein are mock-ups, and are simulated to represent similar plots to those presented in the book Readings in Information Visualization: Using Vision to Think, therefore those corresponding figures should be designated by a legend such as --Prior Art-- if only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Specification

5.   The attempt to incorporate subject matter into this application by reference to "the

book Readings in Information Visualization: Using Vision to Think (Morgan Kaufmann

Series in Interactive Technologies) by Stuart K. Card, Jock D. MacKinlay (Editor), and

Ben Shneiderman (Editor), Morgan Kaufmann Publishers, Jan. 25, 1999, ISBN:

1558605339., is improper because such erroneous incorporation by reference misleads

the public into (normally and properly) assuming that the material (1) must not be

essential since it is not spelled out. However, this is the case.

Applicant is directed to review MPEP 608.01(p) for guidance.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

7.   Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

A.   Claim 19 recites the limitation "said data display" in line 5 of claim. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   Claims 19-22, 37-40, 43-46, 49-52, 55-58 and 61-64 are rejected under 35

U.S.C. 102(b) as being disclosed by Ramana Rao and Stuart K. Card in "The Table Lens:

Merging Graphical and Symbolic Representations in an Interactive Focus+Context

Visualization for Tabular Information", hereinafter Rao.

A.   Claim 19, "An interactive data analysis system, comprising: a display device for

two-dimensional display of data having a first variable and a second variable [Fig. 1,

numeric range 4-6 and alphabetic range G-H both corresponding to 1st & 2nd variables]; a

data retrieval mechanism for retrieving data and displaying it on said display device

[Color Plate 1 showing retrieved and displayed data for Avg, Career Avg, Team and

Salary 87]; image display instructions for overlaying upon said data display an interactive

analysis tool [page 4, Table Lens User Interface – corresponding mouse provides

instructions], said image display instructions include instructions for generating a data

display region, an active axis, and a focus region defining a subset of said data display

region [shown in Color Plate 1, wherein "data display region" corresponds to graphical

data; "active axis" corresponds to Table Lens axis of graphical plot; "focus region"

corresponds to expanded data rows showing names with associated subset of data]; and,

display object generation logic for mapping, via a mapping operation, the data within said

focus region to one of a plurality of display objects in said active axis [graphical

expanded displayed data in focus region of Color Plate 1]; and, a user input mechanism

for inputting instructions to said data analysis system to modify the operation of said

focus region, said modification causes said display object generation logic to again map

said data within said focus region to one of a single or plurality of display objects in said

active axis [use of mouse resulting in color Plate 2]" is disclosed by Rao [as detailed].

B.   Claim 20, "The system of claim 19 wherein said interaction with said active axis

allows said mapping operation to be modified to perform an alternate mapping of said

active axis to said first variable component, and to modify the focus region of said data

pane [Thus, the Table Lens mutates the layout of a table without bending any rows or

columns. Cells in the focal area and the label row and column divide the total focus space

of each dimension appropriately. Cells in the context divide the remaining space equally.

Figure 1 shows a 10 by 14 table with a focus area of 3 by 2 cells. – Last sentence of page

1 – 1st paragraph of page 2, wherein mutates corresponds to alternate mapping and

modify; In particular, as the focus is moved around the table, it may have to change size

to remain on cell boundaries. – Page 2, end of 2nd whole paragraph, wherein focus is

moved corresponds to alternate]" is disclosed, supra for claim 19, and [as detailed].

C.   Claim 21, "The system of claim 19 wherein said data pane image includes a first

active axis along a first axis of said plot mapped to a first variable component of said

data, and a second active axis along a second axis of said plot mapped to a second

variable component of said data [as shown in Color plate 1 for two expanded focus

areas]" is disclosed, supra for claim 19, and [as detailed].

D.   Claim 22, "The system of claim 19 further comprising: instructions for scratching

within said data pane image, allowing a user to move a cursor over data displayed within

the data pane image, said movement causes said focus area to be enlarged [as

demonstrated with Color Plates 1 and 2]" is disclosed, supra for claim 19, and [as

detailed].

E.   Per independent claim 37, this is directed to a system comparable to the system of

independent claim 19, and therefore is rejected to independent claim 19.

F.   Per dependent claims 38-40, these are directed to a system comparable to the

system of dependent claims 20-22, and therefore are rejected to dependent claims 20-22.

G.   Claim 43, "A system for interactive data analysis, comprising: a processor-based

machine including a memory and instructions stored therein for:

Retrieving ... analyzed; displaying ... plot [Fig. 1, numeric range 4-6 and

alphabetic range G-H both corresponding to 1st & 2nd variables]; overlaying ... plot [page

4, Table Lens User Interface – corresponding mouse provides instructions]; mapping ...

objects [as shown in Color Plates 1 and 2]; displaying ... image [also shown in Color

Plates 1 and 2]; receiving ... region [In particular, as the focus is moved around the table,

it may have to change size to remain on cell boundaries. – Page 2, end of 2nd whole

paragraph, wherein focus is moved corresponds to alternate]; and regenerating ... region

[*slide* changes the location of the focus area within the context. It corresponds to sliding

the Document Lens or Table Lens in its 2-d plane, or to panning to a different region on

the Perspective Wall. – page 3, 2nd entry of 1st paragraph]" is disclosed by Rao [as

detailed].

H.   Per independent claim 55, this is directed to a method for the system of

independent claim 43, and therefore is rejected to independent claim 43.

I.   Per dependent claims 44-46, this is directed to a system comparable to the system of dependent claims 20-22, and therefore is rejected to dependent claims 20-22.

J.   Per dependent claims 56-58, this is directed to a system comparable to the system of independent claim 43 and dependent claims 44-46, and therefore is rejected to independent claim 43 and dependent claims 44-46.

K.   Claim 49, "A system for allowing a user to interactively analyze data, including a processor-based machine having a memory, said memory including instructions for: retrieving ... device; displaying ... device [Fig. 1, numeric range 4-6 and alphabetic range G-H both corresponding to 1st & 2nd variables]; overlaying ... area [page 4, Table Lens User Interface – corresponding mouse provides instructions]; mapping ... objects [as shown in Color Plates 1 and 2]; and allowing ... window [**TABLE LENS USER INTERFACE** The screen interface for the current Table Lens system is shown in Color Plates 1 and 2. All plates are based on the baseball statistics data described above. Interaction is based on a small number of keyboard commands and pointer gestures. In particular, we use two mouse buttons: one for "touching" and another for "grasping." Pointer gestures are performed by pressing the touch button and drawing a stroke (e.g. "flicking" in various directions). Objects are dragged using the grasp button. Focal Manipulation is supported using control points and pointer gestures. Grasping the control point at the upperleft corner cell is used to zoom all cells, and control points on each focus are used to adjust-zoom that focus. Touching any region in the context will slide the current focus to that location. Grasping any focus allows dragging (sliding) that focus to a new location. New foci are added by grasping a cell in the context which initiates a drag of a control point for adjust-zooming the new focus. Keyboard commands

allow removing all focal spans on each dimension. A number of operators are provided

on columns. They can be moved between three levels of focus (hidden, non-focal,

or focal) with "flick left" and "flick right" gestures (Color Plate 2 shows columns at each

level of focus). Columns can be rearranged by grasping the column label and moving it

to a new position in the table. Columns can be sorted in descending or ascending order

with "flick down" or "flick up" gestures. All color plates show some column that has

been sorted. Finally, new columns can be added and derived by a calculation over other

columns, constants, and standard series. Color Plate 1 shows "Avg" and "Career Avg"

columns that have been derived by dividing "Hits" by "At Bats." Graphical mapping

parameters and spotlights can be selected using column-specific or global dialog boxes.

Controls include selection of applicable presentation types and presentation type

parameters for the column (e.g. what value the left edge and right edges of the column

represent in the bar presentation or how colors are assigned in the category swatch

presentation). The user can also spotlight particular values in a column and focus on

spotlighted rows. In Color Plate 2, the extremes, quartiles, and median in the "Hits"

column and the right fielders in "Position" column are spotlighted. In addition,

the focus has been set to the rows containing spotlighted values in the "Hits" columns

with a keyboard command.]" is disclosed by Rao [as detailed].

L.   Per independent claim 61, this is directed to a method for the system of

independent claim 49, and therefore is rejected to independent claim 49.

M.   Per dependent claims 50-52, this is directed to a system comparable to the system

of dependent claims 38-40, and therefore is rejected to dependent claims 38-40.

N.   Per dependent claims 62-64, this is directed to a system comparable to the system

of independent claim 49 and dependent claims 50-52, and therefore is rejected to

independent claim 49 and dependent claims 50-52.

Allowable Subject Matter

10.   Claims 23-24, 41-42, 47-48, 53-54, 59-60 and 65-66 are objected to as being

dependent upon a rejected base claim, but would be allowable if rewritten in independent

form including all of the limitations of the base claim and any intervening claims.

Responses

11.   Responses to this action should be mailed to: Commissioner of Patents and

Trademarks, Washington, D.C. 20231. If applicant desires to fax a response, (703) 872-

9306 may be used for formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA., Sixth Floor (Receptionist).

Inquiries

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Greg Cunningham whose telephone number is (703) 308-

6109.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew Bella, can be reached on (703) 308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

J.F. Cunningham, Examiner

gfc

August 13, 2004

Matthew C. Bella

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600